

REMARKS

In response to the Advisory Action dated May 22, 2002, and the Office Action dated January 3, 2002, Applicant amends his application and requests reconsideration. In the Amendment, claims 2-4 have been added, and claim 1 has been cancelled. No new matter has been added. Claims 2-4 are now pending and under examination.

Claims 2-4 are supported by the application as originally filed (see, for example, page 7, line 1 to page 9, line 5).

Claim 1 was rejected under 35 U.S.C. §103(a) as being unpatentable over Applicant's admitted prior art in view of Meinke et al. (U.S. Patent 4,091,687). The rejection has been rendered moot by the cancellation of claim 1.

For the following reasons, claims 2-4 are patentable over the cited references.

Figure 3 shows two roller bearings (10 and 11) disposed on the opposite sides of the magnetic bearing. The present invention is directed to the rolling bearing designated by reference numeral 11.

As shown in Figure 4, the thrust load F_a is suddenly applied to the roller bearing (11) when the magnetic bearing stops working and the roller bearings are used to support the rotatable shaft. When the rotatable shaft contacts the upper inner race of the roller bearing (11), the thrust force F_a is transmitted from the upper inner race to the upper rolling member and to the outer races. To react to the thrust force F_a , the force Q is applied to the lower inner race through the lower rolling member. Since the inner races are supported only by the rolling members, when a force is applied to the interface between the inner races, the inner races may be damaged. After that moment, the inner races experience the compression forces Q as shown in Figure 5, which may also cause damages to the inner races.

To solve this problem, the inner races in the illustrated embodiment are not supported by the shaft and are only supported by the rolling members, as claimed in claims 2-4.

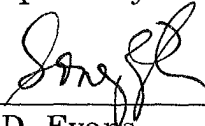
In Meinke et al., on the other hand, the integral inner race is clearly supported by the shaft side member and not by the rolling members.

In light of the foregoing remarks, this application is considered to be in condition for allowance, and early passage of this case to issue is respectfully requested. If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #152/48811).

August 5, 2002

Respectfully submitted,



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